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Customer Perception of Internet Banking Service Quality: A Case Study

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Resumo

A internet e as tecnologias de comunicação estão a crescer rapidamente no século 21. O setor bancário não será uma exceção em termos de adoção de modo a que possa tirar partido das vantagens da internet e das tecnologias de comunicação nos serviços financeiros. Serviço bancário pela internet é um deles. A fim de permanecer num mercado competitivo, a qualidade do serviço é um fator determinante para o sucesso do negócio a longo prazo e para construir vantagens competitivas. Ao oferecer serviços de alta qualidade, a satisfação do cliente aumenta, assim como a sua retenção e fidelização. Desta forma, a medição da qualidade para serviços bancários pela internet está cada vez a chamar a atenção dos gestores bancários, bem como de investigadores (Jayawardhena, 2004).

O objetivo deste trabalho é desenvolver uma escala de vários itens para medir a qualidade dos serviços bancários pela internet no contexto do Laos. Esta tese adaptou a escala eTailQ, uma escala bem conhecida e amplamente utilizada na qualidade do serviço electrónico, para o contexto dos serviços financeiros na economia asiática. Os dados foram obtidos por meio de métodos qualitativos e quantitativos. O método qualitativo foi de entrevistas com os clientes do serviço bancário pela internet e gestores bancários, de modo a formar a estrutura e identificar os fenómeno para apoiar o desenho de um questionário. O método quantitativo foi o envio de um questionário *online* para clientes do serviço bancário pela internet no Laos. A análise dos dados para este estudo teve como objetivo os métodos EPT e CFA. Apesar de terem sido enviados 1.995 questionários, apenas 46 dos questionários recebidos eram válidos. Infelizmente, o desenvolvimento da escala de qualidade do serviço não é possível. No entanto, os dados recolhidos ainda são úteis para uma análise estatística descritiva. Além disso, esta tese ampliou o seu âmbito de modo a explorar mais profundamente o quadro geral e a tendência da banca eletrónica no Laos, bem como a adoção de telefones móveis no Sudeste Asiático e Laos.

Os resultados deste estudo indicaram a avaliação de desempenho que é feita pelos utilizadores do serviço bancário pela internet no Laos. O serviço bancário pela internet tem melhor desempenho em termos de cumprimento/confiabilidade, seguidos de segurança/privacidade. Em termos das dimensões de desenho *web*, atendimento ao cliente, e tratamento preferencial, o banco deve prestar mais atenção a estas dimensões e procurar melhorias. Com uma média de 3,82 em 5 em termos da classificação de perceção da qualidade do serviço, o serviço bancário pela internet deve ser avaliado de modo a aumentar a qualidade do serviço. Apesar de existir menor satisfação do que intenções de fidelidade, os clientes ainda tendem a ser leais ao serviço bancário pela internet no Laos. Além disso, as taxas do serviço bancário pela internet são uma questão crítica e foram identificadas algumas sugestões de melhoria para o banco. Finalmente, os resultados do estudo exploratório mostram que entre os serviços bancários eletrónicos no Laos, o serviço bancário por telefone é maior do que a adoção do serviço bancário pela internet, com a tendência de aumentar mais no futuro. Curiosamente, SMS bancário permanece popular entre os clientes do banco em Laos.

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Abstract

The Internet and communication technology are growing rapidly in 21st century. Banking industry has no exception to adopt the advantages of Internet and communication technology to financial services. Internet banking is one of them. In order to stay in competitive market, service quality is an important determinant for long-term business success and building competitive advantages. Offering high quality services increases customer satisfaction, retention and builds loyalty. Hence, service quality measurement for Internet banking services is increasingly drawing attention to bank managers as well as researchers (Jayawardhena 2004).

The objective of this thesis is to develop a multiple item scale for measuring service quality of Internet banking in Laos context. This thesis adapted eTailQ, a well-known and widely used electronic service quality scale to the context of financial services in Asian economy. The data was collected by qualitative and quantitative methods. The qualitative method was in-depth interviews with Internet banking customers and bank managers in order to form the framework and identify the phenomena to support the questionnaire design. The quantitative method was sending an online questionnaire to Internet banking customers in Laos. The data analysis for this study aimed for EFA and CFA methods. Despite 1995 questionnaires were sent out, only 46 valid questionnaires were received. Unfortunately, the development of service quality scale measurement is not possible. However, the data collected is still useful for descriptive statistical analysis. In addition, this thesis has extended the scope to explore deeper into the overall picture and trend of electronic banking in Laos as well as mobile phone adoption in Southeast Asia and Laos.

The results of this study indicated the performance evaluation of Internet banking in Laos. Internet banking performs better in terms of fulfillment/reliability followed by security/privacy. In terms of web design, customer service, and preferential treatment dimensions, the bank should pay more attention for improvement. With an average of 3,82 out of 5 rating of perceived overall service quality, more assessment on Internet banking improvement should be carried out to increase quality in the service. In spite of having lower satisfaction than loyalty intensions, customers still tend to be loyal with the Internet banking service in Laos. Moreover, Internet banking fees is the critical issue and some improvement suggestions for the bank are identified. Finally, findings from the exploratory study showed that among e-banking services in Laos, mobile banking is higher than Internet banking adoption and tends to increase more in the future. Interestingly, SMS banking remains popular among bank customers in Laos.

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1 Introduction

Information and communication technology are growing rapidly globally. The intensiveness and power of Internet usage influence the way people interact and more people prefer to use self-service technology rather than traditional services. As a result, many traditional services have been transformed to modern services that can be done through the Internet channel anytime and anywhere. Internet banking is a way of future innovative banking service development; banking sectors are no exception in this revolution and have been invested heavily in Internet banking service in addition to conventional banking services, with the aims to providing their customers to gain advantage of convenience, 24 hours a day accessing financial services mobility. Internet banking service is non-human interaction; the use of each service element through banks' websites is an opportunity to form quality perception for customers. Therefore, Service quality is an important tool for long-term business success and building competitive advantages. Offering high quality service increases customer satisfaction, retention and building loyalty. Hence, service quality measurement for Internet banking services is being increasingly drawn attention by bank managers as well as researchers (Jayawardhena 2004).

Previous researches suggested that, even though, there are several studies focusing on the developing measures of traditional banking service quality. However, there are very few studies addressing the service quality in Internet banking services (Jun and Cai 2001). Moreover, there is still lacking of researches that have examined the service quality dimensions of Internet banking services and perception of Internet users regarding a specific bank (Bauer, Hammerschmidt, and Falk 2005).

This study is to develop a framework for Internet banking service quality and develop scales for measuring Internet banking service quality in order to fulfill the gap of research in a particular bank. The study adapted an electronic service quality model that has been developed in western economies to the context of a developing Asian economy, particularly to the banking customers in Lao, to compare if there are different measures of Internet banking service quality in a scope of local context.

In order to understand the overall picture of this thesis, the thesis consisted of six chapters:

- Chapter 1 – Introduction, contextualization and motivation of the study, company profile, development of Internet banking and research objectives.
- Chapter 2 – Literature Review, discusses the relevant research areas and works in this study.
- Chapter 3 – Research Methodology, describes in details the data collection method and procedures.
- Chapter 4 – Data analysis Method and Survey Results, describes data analysis procedures in details and presents findings.
- Chapter 5 – Mobile adoption in Southeast Asia and Laos, explore the emerging mobile phone consuming and trends in the future.
- Chapter 6 – Conclusion and Future Work

1.1 Contextualization and Motivation of the Study

Internet in Laos has been available in 1998 and the availability of 3G Internet broadband has remarkably increased the use of Internet. According to a recent report from the World Bank, approximately 10.7% of the population in Laos has Internet access and it has been increased to triple figure in 2008. In consequence, an increasing number of businesses are being offered via the Internet channel. This can be seen as a signal of speeding up business opportunities on Internet channel in Laos and banking sectors has no exception to gain advantage as well.

At the end of 2015, in a little over one and half years' time, Laos is going to enter into ASEAN Economic Community (AEC), the regional economic integration of 10 ASEAN countries. As the opening of AEC will bring into being a single market and production base, enabling a free movement of goods, services, investment, skilled labor, and free flow of capital throughout the entire region. Banking industry needs to stay ahead to facilitate and to support their moves throughout the region. Banks in Laos see upcoming AEC as a challenge in term of products and services competitiveness and preparing to deal with increasing of customer requirements in term of financial service offerings. Laos currently has 32 banks operating, and an increasing number of foreign banks are planning to invest in the country as a result of the upcoming regional economic integration, AEC. In consequence, banking service tends to be more competitive in this economy.

Banque pour le Commerce Exterieur Lao Public or BCEL initially launched Internet banking services in November 2008, in complementary to their traditional banking services. In the eyes of consumers in this region regarding the culture, technology trend, and personal attitude, this is relatively a new challenge for the bank to develop the Internet banking services to meet customer expectations. Meanwhile, Internet banking system has not been widely known by consumers in Asia, particularly in Laos. They may perceive quality in different fashion as in western countries. Thus, understanding consumer perception in the particular region is important for the bank to success in providing Internet banking services to their customers.

Therefore, measuring Internet banking service quality has chosen for this study, as Internet banking is an emerging banking activities in Laos and competitiveness intensive of banking services has been foreseen in the coming years. Banks in Laos should be prepared in providing the right products and services to satisfy customers.

1.2 The Company: Banque Pour le Commerce Exterieur Lao Public

Banque pour le Commerce Exterieur Lao Public (BCEL) is the first bank of Laos and established in 1975. BCEL is the most significant state owned commercial bank; the largest and longest running bank in the country. Moreover, the bank holds majority of the banking market in terms of network, assets, deposits, and loans.

BCEL has continued to grow and strengthen gradually in various fields including the size of assets, deposits, loans and the number of clients. In 2011, BCEL transformed its business from a state-run to a publicly owned bank and announced to be the first bank in Laos to register on the Lao Securities Exchange in January 2011. This significant revolution brigns the bank reputation becomes well known and opens more to public domestically and internationally.

As a public company, according to Figure 1 (on the right), the company has various shareholders. BCEL is now 70% owned by the Lao government, while 10% owned by the strategic partner, COFIBRED a subsidiary of the BRED Banque Populaire from France and the remaining 20% of the share up for sale owned by the public, in which 5% owned by BCEL staff.

According to Figure 1 (on the left), as BCEL is the leading bank in Laos, lends to large corporate and SMEs across various sectors. The company has diversified income profile with strong growth in core net interest income accounted for 38%, and fee income accounted for 31%. Other 21% of income comes from trading or sub-businesses and 11% comes from other sources.

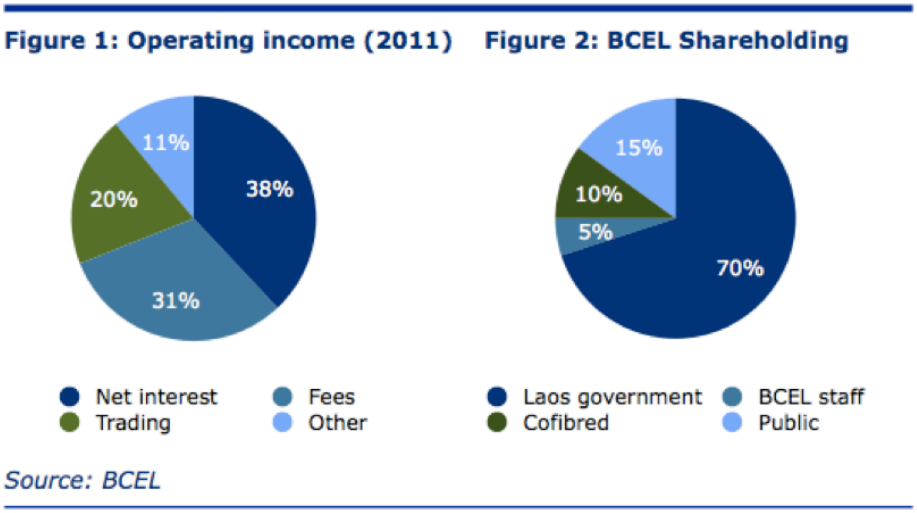


Figure 1 BCEL income source and shareholding

The rapid growth of BCEL since the last three decades, in term of reputation and size, is increasing significantly. Remarkably, the bank moved forward from a state owned commercial bank to a publicly owned bank, which can be seen as the significant revolution of banking industry in this region. Moreover, BCEL strategy is focusing in developing innovation in financial products and services. As a result, BCEL becomes the leader of innovative bank in Laos since recent years. In order to explore more about this in details, the next section will be discussed one of the most innovative services offering.

1.3 Development of Internet Banking: i-Bank

BCEL has invested heavily in developing innovative banking services and products since the last half decade. One of the huge investments is Internet banking service, named i-Bank, a banking service through bank's website. Remarkably, the bank accomplished the first and fast Internet banking adopter in Laos, and entering to the market since November 2008. As of February 2014, BCEL acquired more than two thousand Internet banking users (including active and inactive users), where corporate users accounted for almost half of the total users, (41%), while regular users accounted for 59%.

After a few year of the Internet banking adoption, Internet banking usage grew rapidly in 2010; the bank acquired 427 customers, with a satisfied growth rate at 194.48 percent year-

on-year. As can be seen in Figure 2 shown below, the growth rate is increasing from 2008-2011, with annual average growth at 64%. Thus, Internet banking in this market is seen growing continuously and it is expected that the number of users will still grow consistently.

Besides increasing of user growth rate, amount of transaction is also increasing year by year. In 2011, the number of transactions was made for 60 101 transactions, increasing by 58,11% compared to 2010. As can be seen in Figure 3 shown below, annual average transaction growth rate is increasing at 68.72% from 2009 to 2013.

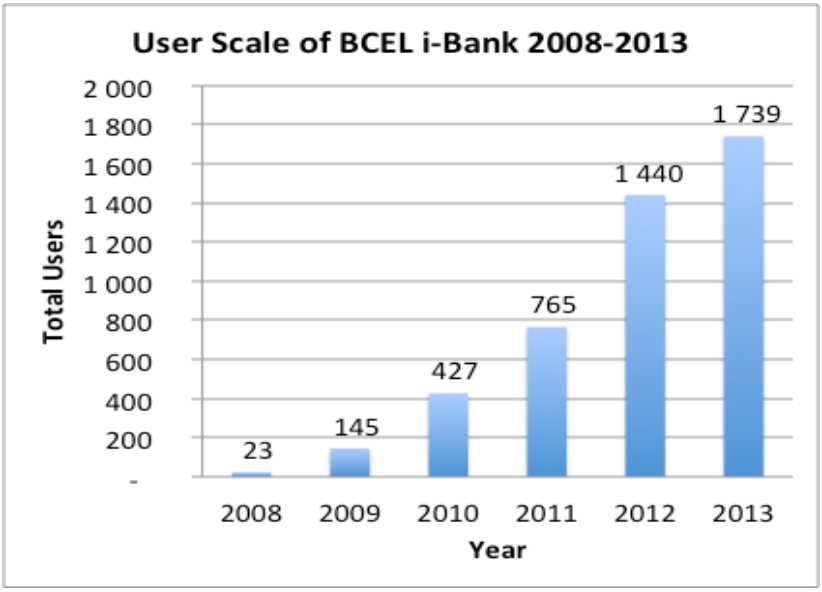


Figure 2 User Scale of IB

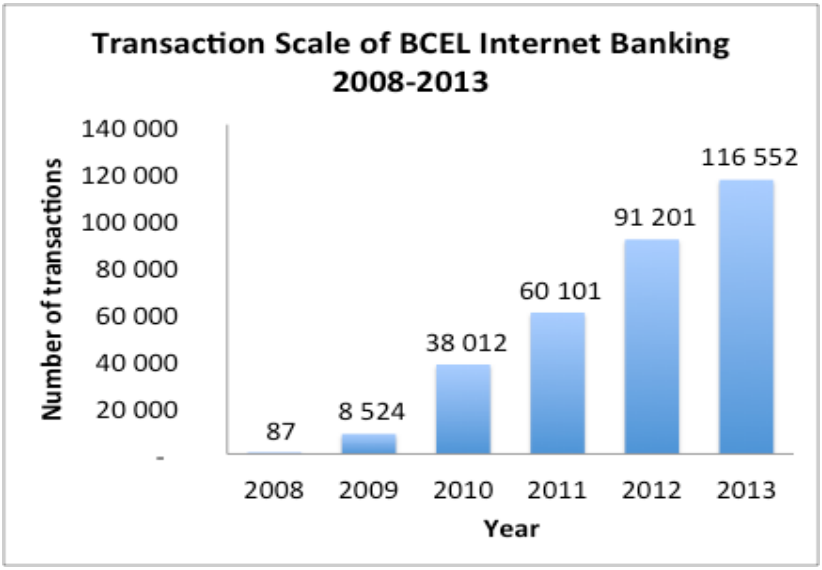


Figure 3 Transaction Scale of IB

Internet banking in Laos is growing consistently as can be seen from the user and transaction growth rates shown in the graphs above although it is still at its infancy when compared with

other developed countries. Nevertheless, the first adopter like BCEL needs to delight existing users and attract new customers by offering quality the customers in the region perceived in the service of Internet banking. Because offering high service quality in Internet banking can bring reputation and competitive advantage for the bank and promote convenience for customers. As a result, banks gain high profits and achieve in long-term business success.

1.4 Research objectives

The objective of this thesis is to develop a multiple item scale for measuring service quality of Internet banking in Laos. The main research question for this study is:

Which service quality dimensions should banks take into account when assessing the quality of their Internet banking in context of Laos?

The specific expectations of this research are:

1. Identification of strengths and weaknesses of the system and problems to be addressed
2. Guidelines and suggestions for the bank to improve Internet banking service quality
3. What changes we need to apply the Internet banking services quality model into the local context of Laos
4. A suitable service quality model of Internet banking for the banks in Laos.

This research adapted an eTailQ developed by Wolfinbarger and Gilly (2003), an e-tailing quality scale to the context of Internet banking and consumers in Asian economy, particularly in Laos.

A case study was applied for this project, a project in collaboration with a leading and well-known bank in Laos, namely BCEL. The target group for this study is specific to BCEL's customers only, who are using Internet banking. Primary data collection is the data source for this thesis and supplemented by secondary data provided from the bank.

2 Literature Review

In order to pursue better understanding and insight of service quality in Internet banking, chapter 2 intend to address relevant areas of this study, drawing from the concept of Internet banking, traditional service quality, electronic service quality, service quality in traditional banking, service quality in Internet banking, and the background picture of e-banking in Laos will be discussed before the research methodology section followed up.

2.1 Internet Banking

Internet banking is described as the utilization of the Internet as a remote delivery channel for banking services. Such services include opening a deposit account or transferring funds among different bank accounts, and bills payment on a bank's website (Furst, Lang, and Nolle 2002). Bank customers are allowed to connect to bank's computer systems through the Internet and there is no human contact element as found in the traditional banking services (Jayawardhena 2004). Accordingly, customers can manage their bank accounts and transactions via Web-based interfaces (Weir, Anderson, and Jack 2006). As in general description, Internet banking services are the delivery of banking services through the Internet

web browser (WWW) directly to customers' home, office or desired locations. Customers can perform banking transactions electronically, enjoying flexibility and agility, without visiting any physical bank branches. Hence enables the customers a great deal of conveniences.

Changes in technology, deregulation of finance and increasing new financial institutions are forcing banks to re-evaluate their costs and profit structures, in an attempt to remain profitable. As a consequence, increasing number of banks worldwide have realigned their banking and financial services on the Web by offering Internet banking to their customers as a complementary service to traditional banking. Because the cost of Internet banking services is much lower than the same services performed at bank branches (Polatoglu and Ekin 2001), banks have been promoting Internet banking as a convenient facility for customers and ultimately costs saving for banks themselves. As Simpson (2002) stated that *"banks will need to develop a ''clicks'' rather than a ''bricks'' and mortar strategy as their branches will be visited less and will generate less profit"*. Moreover, several innate downsides of a traditional bank branch can be replaced by Internet banking (Jayawardhena and Foley 2000).

Apart from this, Internet banking adds benefits to both customers and banks. Internet banking enables customers to administer their accounts preferably without time and place restriction (Jayawardhena and Foley 2000, Sayar and Wolfe 2007, Calisir and Gumussoy 2008), and offers lower fees compared to using traditional banking (Sayar and Wolfe 2007). For the banks, Internet banking is driven largely in aspects of operating costs minimization and operating revenue maximization (Simpson 2002), and banks gain costs effective and efficiency in a large number of functional areas (Jayawardhena and Foley 2000). As a consequence of its substantial advantages, at present, there are more than thousand websites of Internet banking from all over the world (Guraau 2002), and rapid increasing number of banks are going to offer online banking services (Aladwani 2001). Thus, customers seem to have more choices in choosing an Internet banking service provider. To attract customers, banks need to offer services that meet customers' requirements, given that switching costs are becoming lower, and a great number of Internet banks increasing. Educated consumers will be able to switch to another banks at the press of a button, in the comfort of their homes (Elizabeth 1999).

2.2 Traditional Service Quality

During the past few decades, service quality became a major area of interest for academic researchers. Because services have a number of distinctive characteristics that differentiate from goods, defining concept of service quality is not easy to define in a few words and has different way from product quality. Thereby, service quality has been defined in different way by various scholars. The prominent definition of service quality was diffused in the mid eighties by Grönroos (1984a) and Parasuraman, Zeithaml, and Berry (1985). Grönroos (1984a) describes service quality in 2 main aspects: technical and functional quality. Technical quality refers to services that customers receive when interact with a service firm (what the firm offer) while functional quality refers to how the technical quality is delivered to them (how service employee provides the service). Additionally, Grönroos also emphasized the important of, in some cases, firm's corporate image aspect in defining customers' perception of service quality based on technical and functional quality. Parasuraman, Zeithaml, and Berry (1985) describe service quality as an "elusive and indistinct construct" because of three unique service aspects: intangibility, heterogeneity, and inseparability of

production and consumption. Later, Parasuraman, Zeithaml, and Berry (1988) define service quality in a comprehensive concept as the difference between customer expectation of service and customers' perceptions of service received. Undoubtedly, service quality is even more difficult to define and evaluate comparing with products quality.

Because services are performances rather than objects, and quality in services occur during service delivery. As a result, customers may be received what the firm intends to deliver in different aspect. Therefore, it is necessary to understand how customers perceive and evaluate quality in services. Gronroos (1984a) states that quality of service is dependent on two variables: expected service and perceived service. The result of the perceived service against the expected service will be the perceived quality of the service. According to Asubonteng, McClealy, and Swan (1996), "service quality is the difference between customers' expectations for service performance prior to the service encounter and their perceptions of the service received". To conclude, as can be seen that service quality is drawn from consumers' perspective, as service perceived by consumers, it comes from the comparison between the expectation (what they think firms should offer) and performance (what they experience and perceive the delivered services). In other words, service quality can be defined as the gap or difference between service expectations and perceive.

Therefore, as a result, firms can obtain reputation of quality by meeting or exceeding customers' want and expectations because customers evaluate service quality by comparing their needs and expectations to what they truly receive or perceive they are receiving (Berry, Parasuraman, and Zeithaml 1988). Moreover, understanding how customers evaluate services and service quality is a challenge for a firm because of service intangibility (Parasuraman, Zeithaml, and Berry 1985). Thus, service quality is appeared to be the most powerful weapon for firms to compete and stay differentiates in today competitive market.

In addition to the definition of service quality, the measurements of assessing service quality are also important. In order to measure expectation and perception from customers' perspective, service quality dimensions are taken into account. Because services are processes and intangible, the most well-known and widely used measures for measuring service quality are SERVQUAL and SERVPERF models, as will be explained more in details in the following section.

SERVQUAL

SERVQUAL model developed by Parasuraman, Zeithaml, and Berry (1988). The study from Parasuraman, Zeithaml, and Berry has been considered to be the most prominent in the field of service quality items scale. SERVQUAL model, which an instrument for measuring the perceived service quality by comparing the services that consumers feel firms should offer and the delivered services that they experienced. The model has developed 22 items that formed 5 dimensions: tangibility, responsiveness, reliability, assurance, and empathy. This service quality measurement can be called disconfirmation method and has been developed according to the gap between the expectation and perception from consumers' perspective. SERVQUAL model has been referred and used widespread in both academic researches and service industry (Brown, Churchill Jr, and Peter 1993), as the model is designed for

measuring service quality as perceived by consumers in across a range of businesses. Such businesses in the study included banking, credit cards and appliance repair.

SERVQUAL is based on 5 dimensions of perceived service quality (Parasuraman, Zeithaml, and Berry 1988):

- Tangibles: physical facilities, equipment, and appearance of personnel.
- Reliability: ability to perform the promised service dependably and accurately.
- Responsiveness: willingness to help customers and provide prompt service.
- Assurance: knowledge and courtesy of employees and their ability to inspire trust and confidence.
- Empathy: caring, individualized attention the firm provides its customers.

In the study, the reliability was found the most critical dimension of service quality, followed by assurance, whereas tangibles were the least important dimension.

SERVPERF

SERVPERF model developed by Cronin and Taylor (1992). This model was unpacked of SERVQUAL model, for measuring service quality by using only the customers' perception. Cronin and Taylor claimed that measuring customer's expectations is not necessary as found in SERVQUAL, only measuring perceived performance is sufficient for measuring service quality (Baumann et al. 2007). Therefore, SERVPERF is developed for measuring service quality in term of performance only. However, SERVPERF model used the same dimensions as found in SERVQUAL model. According to Dabholkar, Shepherd, and Thorpe (2000), measurement only performance or the customers' perceptions from delivered services is superior to disconfirmation method. This means that measuring both customers' expectation and perception cannot have better understanding and evaluation of their intension comparing with only measuring perception. In conclusion, service quality can be measured by evaluating the service performance.

As explained earlier, definition and measurement of service quality varies. However, a general perspective of service quality is a multi-dimensional or multi attribute construct (Parasuraman, Zeithaml, and Berry 1988, Cronin and Taylor 1992).

Although service quality measurements have been extensively studied, the intensive of Internet usage motivated researchers to innovate traditional service quality measures that can be utilized to the Web environment, e-service quality. Because of its unique features that traditional service quality models do not pay attention to, for instance, SERVQUAL mainly focuses on customer-to-employee service interaction, whereas e-service quality is an interaction between customer and website interface. Therefore, in order to gain more understanding about online service quality measurement. The next section covers the studies.

2.3 Electronic Service Quality

The advances and intensive in Internet technology have changed the interaction environment, such as service through electronic channel. Electronic service has been known generally as

the technology-based self-service or e-service that is delivered through the Internet, which is different from traditional service delivering. Several researches have been studied and conceptualized in defining e-service. Moreover, different researchers defined e-service in various ways, but different views concentrate the same meaning. Rowley (2006) conceptualize e-service as an interactive information service between customers and service providers, then analyzed by the firms, and finally used as the basic for service customization. Boyer, Hallowell, and Roth (2002) define e-service as interactive services that are delivered over the Internet. Zeithaml, Parasuraman, and Malhotra (2000) conceptualized e-service as web-based service delivered through the Internet. Overall, according to Ruyter, Wetzels, and Kleijnen (2001), e-service involves to "interactive, content-centered and Internet-based customer service, driven by the customer and integrated with related organizational customer support processes and technologies with the goal of strengthening the customer-service provider relationship". To conclude, e-service delivery is not face-to-face interaction between firm and customer, but customer's interaction or contact with the firm is through the technology as a mediator, such as a web site. Accordingly, customers can receive the service through the Internet at home or in desired locations. As such, e-service offering have to be fully dependent on the access to the information and communication technology.

Knowing the nature of e-service and its concept leads to improve a understanding of e-service quality. e-service quality is defined as the degree to which a web site supports the "efficient and effective shopping, purchasing, and delivery of products and services" (Zeithaml, Parasuraman, and Malhotra 2000). Santos (2003) defines the concept of e-service quality as the overall evaluation and judgment, drawn from customers' perspectives, of the excellence and quality of e-service offering in the virtual marketplace. This means that quality in e-service is generated from customers' perception when they use a company website. Therefore, providing high quality in e-service is likely to influence "attractiveness, hit rate, customer retention, stickiness, and positive word-of-mouth, and can maximize the online competitive advantages of e-commerce" (Santos 2003). In addition, service quality is one of the key determinants for successful e-commerce (Santos 2003). However, firstly, a framework of service quality should be developed and defined, begin with and according to customers' requirements and preference (Jun and Cai 2001). Service provider firms must first understand how customers evaluate and perceive online services, in order to deliver superior service quality through web site (Zeithaml, Parasuraman, and Malhotra 2002). As a result, leads to high profitable in e-commerce businesses.

At present, e-service quality appears to be a dominant player in the era of information economy. With the pervasive of Internet banking offering in e-commerce, demanding in developing scales for measuring e-service has been taking in consideration. Practically, some researchers have developed the measurement scales for e-service quality in order to pursue better and further development for e-commerce context.

Several researches have been done for e-service quality scale measurements, however the most well-known, widely used, reliable and validated scales are eTailQ (Wolfinbarger and Gilly 2003) and E-S-QUAL (Parasuraman, Zeithaml, and Malhotra 2005) models. These models measure e-service quality throughout the whole transaction process based on online retailing services. Online retailing service studies have been chosen for framing a comprehensive evaluation of e-service quality, including assessments of actual online purchasing experience from the beginning until completion of purchase. According to

Zeithaml, Parasuraman, and Malhotra (2000) study have defined e-service quality as the extent to which a website can support the whole process of online shopping, including effective and efficient shopping, purchasing as well as service and product delivery. For this reason, both models aforementioned are suitable for evaluation customers' experiences before, during and after transaction process.

eTailQ

Wolfinbarger and Gilly (2003) developed eTailQ, a scale comprises 14 items that form 4 dimensions:

- Fulfillment/reliability: the accurate display and description of a product so that what customers receive is what they thought they ordered, and delivery of the right product within the time frame promised.
- Web site design: includes all elements of the consumer's experience at the website (except foe customer service), including navigation, information search, order processing, appropriate personalization and product selection.
- Customer service: is responsive, helpful, willing service that responds to customer inquiries quickly.
- Privacy/security: is security of credit card payments and privacy of shared information.

Among these dimensions, the Fulfillment/reliability was found the most critical dimension of e-service quality evaluation, followed by web site design, while security/privacy is still vague in term of its important.

As can be seen the four factors found in this model, indicating the whole transaction process involved into the evaluation of perceive e-service quality, particularly the dimensions of fulfilment/reliability and customer service.

E-S-QUAL

An e-service quality measurement scale developed by Parasuraman, Zeithaml, and Malhotra (2005). This measure scale includes two sub-scales: E-S-QUAL and E-RecS-QUAL. The E-S-QUAL is the primary scale, measures e-service quality based on customers' experiences on regular basis, while E-ResS-QUAL scale is an e-service quality measure when a service problem occurs, and service recovery takes place. The basic E-S-QUAL comprises 22 items-scale that forms 4 dimensions and E-ResS-QUAL contains 11 items-scale in 3 dimensions.

E-S-QUAL:

- Efficiency: The ease and speed of accessing and using the site.
- Fulfillment: The extent to which the site's promises about order delivery and item availability are fulfilled.
- System availability: The correct technical functioning of the site.
- Privacy: The degree to which the site is safe and protects customer information.

E-RecS-QUAL:

- Responsiveness: Effective handling of problems and returns through the site.
- Compensation: The degree to which the site compensates customers for problems.
- Contact: The availability of assistance through telephone or online representatives.

Remarkably, the E-ResS-QUAL is a subsequent scale development and refinement, a different measure from the basic E-S-QUAL, which concentrates on customers who experienced problems during or after service delivery, and received service recovery.

2.4 Service Quality in Traditional Banking

Fortunately, many studies have been developed for service quality measurement in traditional banking context, and majority adapted from SERVQUAL model. Bahia and Nantel (2000) developed a service quality measurement scale, namely Bank Service Quality, comprises 31 attributes in 6 dimensions: (1) Effectiveness and assurance, (2) access, (3) price, (4) tangibles, (5) services portfolio and (6) reliability. Their study based on SERVQUAL model and adapted to financial service context, banking service. According to a research carried out by Oppewal and Vriens (2000), they constructed 28 items-scale and four dimensions for evaluation of perceived service quality in retail banks: (1) accessibility, (2) competence, (3) accuracy and friendliness and (4) tangibles. Their study revealed that the element of accuracy and friendliness is the most important factor from customers' perspective for evaluation of service quality, followed by competence, tangibles and accessibility.

Avkiran (1999) studied perceived service quality in bank branches, namely BANKSERV. The study found four dimensions as a scale for measuring banking service:

- Staff conduct: responsiveness, civilized conduct and presentation of branch staff that will project a professional image to the customers.
- Credibility: ability to maintain staff - customer trust by rectifying mistakes, and keeping customers informed.
- Communication: fulfilling banking needs of customers by successfully communicating financial advice and serving timely notices.
- Access to teller services: the adequacy of number of staff serving customers throughout business hours and during peak hours.

In the study conducted by Avkiran (1999), the dimension of staff conduct appears to be a key factor in BANKSERV.

The study of Johnston (1995) based on critical incident technique and classification of satisfying and dissatisfying factors. The study identified 18 service quality dimensions for examining customers' perception of banking service: (1) access, (2) aesthetics, (3) attentiveness/helpfulness, (4) availability, (5) care, (6) cleanliness/tidiness, (7) comfort, (8) commitment, (9) communication, (10) competence, (11) courtesy, (12) flexibility, (13) friendliness, (14) functionality, (15) integrity, (16) reliability, (17) responsiveness and (18) security.

As can be seen in the previously mentioned studies of service quality measurement scale, making efforts on the physical bank branches which understood as the traditional banking service. In other words, these studies focused on face-to-face service delivery, which customers interact with service employees at physical bank location. Unfortunately, the service quality dimensions developed in traditional banking context is not appropriate for banking service through Internet (Jun and Cai 2001). Because in the context of the Web environment where customers interact through information technology, such as web site, factors for evaluation of perceived service quality in online banking context may be different. Those factors, from previous studies, will be discussed in the following section.

2.5 Service Quality in Internet Banking

As a consequence of rapid increasing of modern information and communication technologies, it became important for financial service delivery in this era. Measuring service quality in Internet banking services is being paid more attention to academic researchers and bank managers (Jayawardhena 2004). Various researches have been conducted in different context and method regarding service quality in online banking. According to a study conducted in UK by Broderick and Vachirapornpuk (2002), a perceived service quality in Internet banking model was proposed for service quality evaluation and data analysis involved in observation and analysis of incidents. The critical elements identified in their study are (1) cues in the service setting, (2) key events in the service encounters, and (3) level of customer participation.

Jun and Cai (2001) also studied a scale measurement for Internet banking service quality based on American consumers, the scale included 17 dimensions and classified into three broad categories: (1) customer service quality, (2) banking service product quality, and (3) online systems quality. Moreover, among 17 dimensions, the key factors effect satisfaction or dissatisfaction were reliability, responsiveness, access, and accuracy. However, their study used only content analysis based on user experiences of Internet-only banks and traditional banks offering Internet banking service and the factors found in this study were not validated empirically.

However, the work of Parasuraman, Zeithaml, and Berry (1988) suggested a research methodology for developing a valid scale measurement for online service quality and it has been considered the most reliable procedure to apply for development of scale measurement in online context. Fortunately, there are some researchers who have adopted the method and developed scale measurements in different regions. For instance, a research from Ho and Lin (2010), a study in Taiwan, they developed a multiple-item scale for measuring service quality in Internet banking based on the perceived service quality scale, PeSQ (Cristobal, Flavia´n, and Guinal´ıu 2007), and used Taiwan Internet banking users as a sample in their investigation. The study proposed five dimensions and 17 attributes in the measurement scale. The five dimensions are (1) customer service, (2) web design, (3) assurance, (4) preferential treatment, and (5) information provision.

Study of Siu and Mou (2005) identified four dimensions for evaluation of service quality: (1) credibility, (2) efficiency, (3) problem handling, and (4) security. Among these dimensions, the element of security was found as the least important in evaluation service quality in Internet banking. The scale developed by Siu and Mou (2005) transformed e-SERVQUAL

(Zeithaml, Parasuraman, and Malhotra 2000, 2002) to the context of Internet banking users in Hong Kong.

Moreover, the work of Jayawardhena (2004) developed a battery of measures for Internet banking service quality for UK banks. The scale included 21 attributes that form five dimensions of service quality: (1) access,13 (2) Website13 interface,13 (3) trust,13 (4) attention,13 and13 (5) credibility. This scale is a multiple-item scale and adapted based on SERVQUAL (Parasuraman, Zeithaml, and Berry 1988) model to financial context.

In conclusion, even though there are some researches already investigated measures in service quality of Internet banking, the research is still rare in this area. Therefore, there is a need for further investigation to fulfill this gap, particularly research in different cultural context and in a specific bank. Because culture has an impact on website interface quality expectation, especially web banking (Tsikriktsis 2002).

2.6 E-Banking in Laos: background

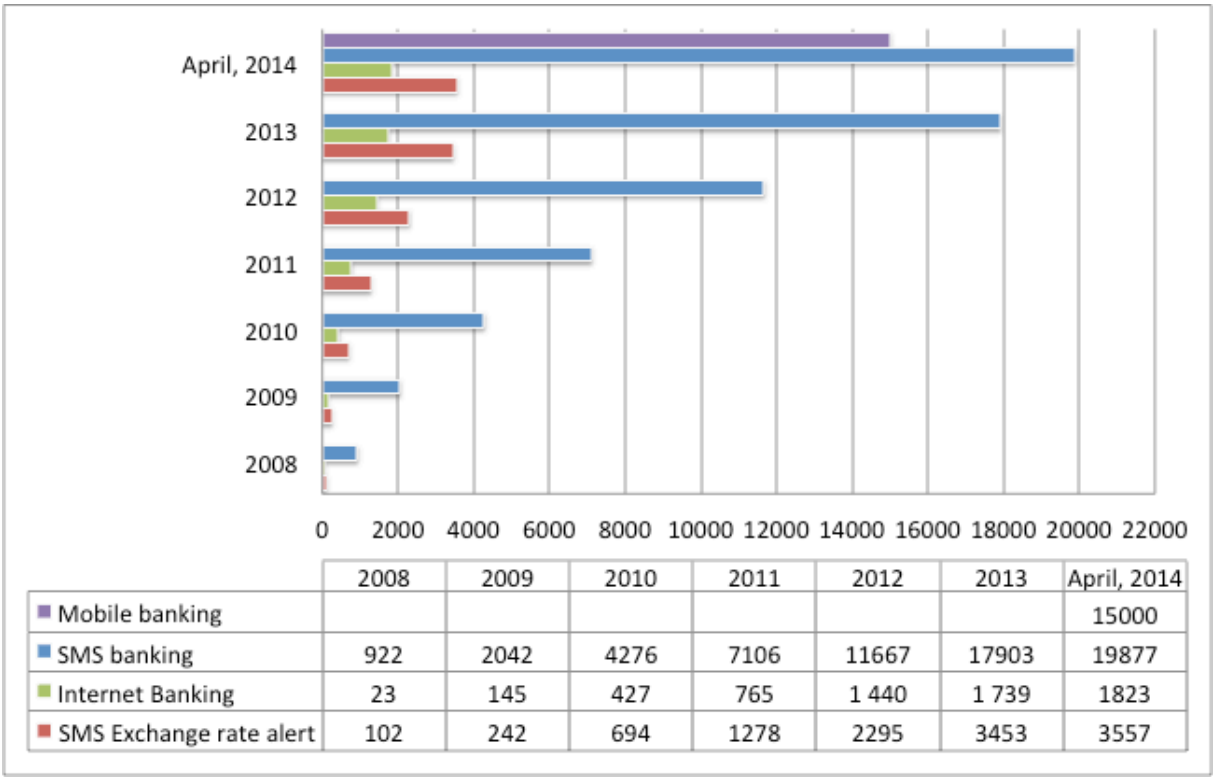
E-banking or electronic banking refers to banking services delivered through electronic channels such as mobile phone, computer, and automatic teller machine. BCEL is making innovation in services to meet customer requirements. According to an interview with an executive from the bank, e-banking in Laos was first introduced by BCEL in 2008. Three in four services: SMS banking, SMS exchange rate alert, and Internet banking. These were the antecedent that the bank officially launched. Then, recently, in 2013, mobile banking application or mobile banking was rolled out to the market. As can be seen in Figure 4, illustrates e-banking users (only active users) statistics particularly in BCEL. As explained earlier, e-banking is an emerging trend in Laos. Even though the number of e-banking users is still low when compared to total number of customers BCEL is serving, the number of e-banking users is increasing continuously and in good extent.

Based on data collected from the bank, BCEL serves approximately 523000 customers nationwide. After the introduction of e-banking services, the bank now has contracted with SMS banking customers 3,80%, mobile banking customers 2,87%, Internet banking customers 0,35%, and SMS exchange rate alert customers 0,68% of total bank customers. Accordingly, with 0,35% of Internet banking users, it can be understood that Internet banking is not yet well accepted compared to the other e-banking services. Therefore, improving customer experience to grow interest in Internet banking is an important strategy for the bank to take into account in order to increase the user rate.

As shown in Figure 4, SMS banking accounts for 19877 users, the highest number of users among e-banking users. It is sensible to understand that SMS banking is quite well accepted in Laos more than the other e-banking services. SMS banking is conveniently accessed by larger group of customers as bank customers do not need additional means of access, such as Internet connection, and advanced knowledge in order to use the service. Bank customers adopt SMS banking in order to keep informed about their financial movements as it is quick, and the most convenient tool compared to mobile banking or Internet banking channel. In general, SMS banking customers require only basic banking functions. For instance, balance inquires, mini-statement and though some other clever stuff. However, apart from only SMS banking users; mobile banking and Internet banking users also utilize SMS banking to be an

alternative way for real-time financial movement alert. A special service provided by the bank is SMS exchange rate alert, is a service for customers inquiring daily currency exchange rate from the bank. It covers a wide range of users and also gains a level of proportion that higher than Internet banking users, which accounts roughly 3557 customers. SMS exchange rate alert not only serving customers of BCEL but all customer types, including customers from other banks or customers that are not bank customers. Specially, it is widedly adopted by non bank customers.

Nevertheless, mobile banking and Internet banking adoption have also grown vastly, but it seems still far from mainstream acceptance for consumers in Laos. One of the most well known and recent e-banking service is mobile banking that reached roughly 15000 users within a year after the introduction. As it is still infancy, increasing customer experience in mobile banking is being studied extensively to meet customers' needs in Laos context. As Mobile banking is accessible by ATM and VISA card holders, and approximately 76% of BCEL bank customers are using ATM. Therefore, it is expected that the number of mobile banking users will be highly increased in the coming years.



	2008	2009	2010	2011	2012	2013	April, 2014
Mobile banking							15000
SMS banking	922	2042	4276	7106	11667	17903	19877
Internet Banking	23	145	427	765	1 440	1 739	1823
SMS Exchange rate alert	102	242	694	1278	2295	3453	3557

Figure 4 E-Banking Users of BCEL

Competitiveness among commercial banks in Laos is increasing; at the time of this study, mobile banking is not offered by BCEL only. Other 2 banks: JDB and LDB are also offering mobile banking and several other banks are planning to offer too. However, they are not well accepted by real customers' needs and remained unknown to and under utilize by Laos bank customers.

In conclusion, SMS banking service is appeared to be the most popular e-banking service in Laos, followed by mobile banking, whereas Internet banking adoption is the lowest. This could be understood that SMS banking is easy to use and most people own at least a basic mobile phone. In term of mobile banking, firstly, it is sensible to explain that there is no cost related to the use of mobile banking application provided by the bank. Secondly, there is high number of bank users own electronic device, which support the application of mobile banking, such as smartphones, iPads or tablets. Lastly, the Internet banking appears to be the lowest adoption as this service targets specific customer groups, such as business units adopt the Internet banking more than regular customers.

3 Research Methodology

Chapter 3, a qualitative study was undertaken to investigate the picture of Internet banking service quality in Lao banks. Specially, in-depth interview with bank officers and customers were conducted to understand the phenomenon of Internet banking in Laos context. Then, a quantitative study was conducted to develop service quality measurement scale for Internet banking.

3.1 Qualitative Study

Service provision through the Internet is an emerging occurrence in Laos. Therefore, a qualitative study was undertaken in order to gain a deeper understanding of the phenomena under the study (Parasuraman and Zinkhan 2002). An exploratory study phase allows adequate of analysis to capture the framework of service quality indicators in Laos context, and aims at eliciting new potential factors that are relevant for the constructs under study. The findings from qualitative analysis can be further used to support the quantitative analysis.

3.1.1. Methodology for qualitative study

The qualitative study was based on in-depth interviews carried out on 26/02/2014 to 04/03/2014, for a week. The study aims to gain a deeper understanding in term of customer evaluations and attitudes towards the Internet banking they are using. In addition, the findings aim for supporting the development of questionnaire.

3.1.2. Sample Design and Procedures

As the target population of this study focused on Internet banking users only, the sample under this study was randomly selected by the bank. According to the information provided by the bank regarding customer categories, 4 Internet banking customers were selected conveniently. Among 2 are corporate customers and 2 are individual customers.

In-depth interviews were conducted via Skype call. Since the research is being carried out in Portugal; face-to-face interviews are impossible. In-depth interview were conducted to each interviewee at convenient time. Although the sample was small, with an average of 20 minutes interview each users allowed comprehensive information regarding customer experiences and attitudes towards Internet banking. To triangulate information obtained from Internet banking users, additional data was also collected from bank staff, the director and an employee of e-banking.

3.1.1.1. Interviewing Procedures and Analysis

The interview with Internet banking customers were semi-structured allowing emergent ideas to be brought up, and focused on their Internet banking experience and requirements towards Internet banking service. Following issues were covered in the interview:

- How do they think about Internet banking service?
- Focused on their Internet banking experiences and requirements towards Internet banking service.
- Advantages and disadvantages of using Internet banking.

Interview with bank staff proceeded the same way, and covered the bank's perspective of customer behaviors and attitudes. In addition, the interview with e-banking director focused on the strategic view of Internet banking as well as customers' perception of Internet banking service from the bank perspective.

In-depth interviews were mixed between note taken and voice recording. The interviews from voice recording were then transcribed to text. The data analysis was analyzed manually. First, each interview script was read repeatedly in order to gain a deeper understanding of the points interviewees reported. Then, important words were identified and made highlighted. The important words were then compared with service quality attributes, and finally categorized the attributes based on service quality dimensions of eTailQ.

3.1.3. Qualitative Results

As explained earlier, the goal of this exploratory study is to understand the social phenomenon of Internet banking as an emergent occurrence in Laos and findings from this qualitative study enabled certain factors to emerge naturally. As can be seen in Table 1, the results of data categorization and analysis showed positive and negative experience of Internet banking. As can be seen, all Internet banking users had good experience with convenience of Internet banking while 3 of them expressed bank reputation is good. However, fulfillment/reliability, security/privacy, and good service were also good experience expressed by an Internet banking user in each experience. In term of the negative, all Internet banking users expressed unsatisfactory experience with the web design. Interestingly, 3 Internet banking users explained Internet banking fees as negative experience while 2 of them explained about security/privacy. Moreover, functionality of Internet banking was also reported by an Internet banking user as unsatisfactory experience. This means that users required more functions to be offered by Internet banking.

Table 1 Interview results

User experiences with Internet banking		
Total: 4 Internet banking users		
Categorization	Positive	Negative
Web design	0	4
Convenience	4	0
Bank reputation	3	0
Fulfillment/reliability	1	0
Security/privacy	1	2
Fees	0	3
Good service	1	0
Functionality	0	1

Findings from this qualitative study indicated some dimensions from eTailQ emerged naturally from users. These are web site design, fulfillment/reliability and security/privacy. It can be seen that convenience in using Internet banking is superb whereas website design is the most critical issue. This indicates that although Internet banking facilitates users moving faster, but users prefer aesthetic website design and user-friendly web site interface. In term of bank reputation, there is no doubt regarding its important for bank customers as majority of bank customers first expressed bank reputation before talking about banking services. Nevertheless, Internet banking fees seems to be an issue for bank customers, followed by security/privacy of bank's website.

3.1.4. Conclusion of Qualitative Study

The qualitative study from this part provides a deeper understanding of customer attitudes and behavior towards Internet banking experiences and allows identification of new phenomena that can be further used for this study.

In general, Internet banking users are satisfied with overall Internet banking service. However, in term of web design, Internet banking fees, and security/privacy, these are the most factors that Internet banking users are not satisfied with. Therefore, improvement should be focused in these areas. Internet banking users are very satisfied with the convenience in

using Internet banking as it saves a lot of time compared to visiting a bank branch. In addition, reputation of bank is well perceived as important among these customers.

In this context, the findings lead to identification of 2 main factors as new phenomena: bank reputation and Internet banking fees. These attributes should be included into this study when design the construct for service quality scale measurement, as eTailQ quality scale does not cover these areas. In term of web design and fulfillment/reliability, these two factors already exist in eTailQ model.

3.2 Quantitative Study

3.2.1. Methodology for quantitative study

This research developed a measurement instrument that mainly adapted the constructs based on eTailQ developed by Wolfginbarger and Gilly (Wolfinbarger and Gilly 2003) and supplemented by scale items from Ho and Lin (2010). The qualitative results confirmed that factors influence service quality of Internet banking in Laos context are in line with the attributes developed by Ho and Lin (2010). As the study is technology enabled service and Internet banking customers are Internet users, therefore web survey was used for data collection.

3.2.2. Sample design

As this is a case study of a specific bank in Laos, target population was focused only on Internet banking customers of BCEL. Based on information from the bank; the social-demographics data, which allowed for stratification could not be collected by the time of this study. Therefore, the target population was Internet banking customers from all types, with total of 2388 Internet banking population as of February 2014. As this research aimed to apply statistical analyses to the data collected, the total sample size will significantly influence the accuracy of results reported by statistical tests (Brewerton and Lynne 2011). Accordingly, the objective was to obtain at least 230 responses or at response rate of 10%.

3.2.3. Survey development and administration

Survey development

The questionnaire consists of five parts. Before answering the questionnaire, the aim of this study was explained on the first page to help respondents to get better understanding of this research. The first part is the most important, containing 25 questions to obtain information on respondents' perception of service quality of Internet banking service. The second part collects information regarding perception of customer satisfaction and loyalty intention towards the Internet banking service. Both parts applied a five-point Likert scale (1 - strongly disagree, 2 - disagree, 3 - neutral, 4 – agree, and 5 – strongly agree) to assess the extent to which participants agreed with the statements. The third part collects information of overall transaction experience quality and participants' feeling towards the IB's website using two different five-point Likert scale (1 - very poor, 2 - poor, 3 – fair, 4 - Good, 5 - Excellent) and (1 - Very dissatisfied, 2 - Dissatisfied, 3 - Neutral, 4 - satisfied, 5 - very satisfied) respectively. The fourth part gathers information of frequency of using Internet as well as Internet banking's website, and there is an open-ended question allows respondents to give

freely opinion regarding future improvement on Internet banking services. Lastly, the fifth part gathers information about demographic information of respondents including gender, age, occupation, education level and income.

Originally, eTailQ scale items consist of seven-point Likert scale (1 – Strongly disagree, 2 – Disagree, 3 – Somewhat disagree, 4 – Neither agree or disagree, 5 – Somewhat agree, 6 – Agree, 7 – Strongly agree). In this study, the perception scale was considered to use a five-point scale. Theoretically, the more Likert scale points the better, however it is likely to become cumbersome to use in Laos practically. The seven-point Likert scale could be very confusing to distinguish the meaning between them and might deter subjects from completing the survey in this circumstance. The option "no answer" was included for all attributes in the survey.

The Survey questionnaire consists of 14 questions from eTailQ and 11 questions adapted from Ho&Lin (2010). Scale items from Ho&Lin (2010) were adapted to the survey because this scale was developed for Internet banking customers in Taiwan, which presume that the context may be similar as in Asian region and some factors were recovered during the qualitative study. The questionnaire was translated into Lao language in which participants are more comfortable, however the English version still exists. In order to ensure the efficient translation, 4 Internet banking users and 5 non- Internet banking users were invited to comment on the wording of Lao translation. This procedure was to ensure that confusing or colloquial wording was minimized (Craig and Douglas 2005).

Survey pre-test

A pre-test survey was carried out before sending out the questionnaire. Test targets were 13 people, who are employees of BCEL and they are also users of i-Bank, among 5 are employees of BCEL, while the rest are customers. The purpose of the pre-test was to test the reliability of questionnaire and identify unclear questions as well as poorly worded questions, particularly the translation of questionnaire to Lao language. It was also to obtain feedbacks on length, format and clarity of instructions whether it was clear and easy to follow.

Survey administration

The online survey was administered on April 10, 2014, lasted for 4 weeks approximately. Each customer received an email from the bank, inviting him/her to participate in the research. In order to achieve satisfactory respond rates, a reminder email was sent again on April 30, 2014. At this stage, the survey period lasted for 3 weeks, and achieved only 30 responses. This could be due to the fact that it was the national holiday for almost a week in that period and the time restriction of this study. However, to make several attempts to contact customers in order to reach the expectation response rate, the bank attempted to contact customers again by telephone in 2 purposes: either conducting interview by phone or reminded customers to participate in the survey when they could not give the interview at that time. Finally, the survey was closed on May 16, 2014. The result was 46 valid questionnaires after reduction from 48 total questionnaires.

At the time of the survey administration undertaking, it was recovered later that the bank information system is not yet systematic in term of customer contact information; particularly customers email addresses keeping record. This means that not all population for this study

has personal email address with the bank. Therefore, the survey was considered to handle in two ways. First, 256 surveys were sent to each personal Internet banking customer email; which the bank currently has, and 1739 surveys were sent to individual Internet banking mailbox.

4 Data Analysis method

Chapter 4; explains about data analysis method and results. As this research aims for scale development for Internet banking service quality in Laos, statistical analysis was planned for the data collected. By the application of exploratory factor analysis (EFA) and Confirmatory Factor Analysis (CFA), we re-aimed for data analysis for this research. Unfortunately, as reported in the survey administration section, the sample size is too small as the data collected was only 46 valid questionnaires, which much lower than the satisfactory rate. Therefore, the factor analyses cannot be applied for this research in order to influence the accuracy of statistic results.

Nevertheless, the data collected is still useful for descriptive statistical analysis. The descriptive statistics provided some interesting background information, and regarding the performances of Internet banking service. Moreover, the qualitative findings from the qualitative studies were also used to enhance the quantitative results.

In addition, as the sample size from the quantitative study is not sufficient to perform statistical analysis to develop service quality scale measurement as planned for this research. Therefore, qualitative data was applied in addition to enrich this research, a interview with bank managers was conducted again to explore the overall picture of electronic banking in Laos and perception of bank customers towards other mobile banking services. The term mobile banking in this research refers to Internet banking, SMS banking, mobile application banking and SMS exchange rate alert that have been providing in Laos.

5 Survey Results

Valid questionnaires are 46 among the 1995 surveys sending out. Target of respondents are Internet banking users in BCEL bank in Laos. This chapter, chapter 4, explains data analysis of descriptive statistics.

5.1 Customers Socio-Demographics information

Table 1 to Table 5, present the demographics information about Internet banking users investigated in this study. As shown in Table 1, Internet banking users that answered the questionnaire are 77% male and 23% female. Table 2 indicates that 66% of Internet banking users are in young adult age group between 20 and 39 years old, which 39% highlighted the younger age group between 20 and 29 years old. Even though, majority of users are younger age between 20 and 29, according to Table 3, 60% of Internet banking users have at least undergraduate degree, and 29% have graduate master degree, and 12% have above graduate degree. Interestingly, none of Internet banking users in this study has education background at high school or below. As a result, online banking services are very popular with bank customers having higher education background.

As shown in Table 4, Internet banking is quite popular among users who working in the government sector as well as private company, which accounted for 38%, and 36% respectively. In addition, 14% of Internet banking users are from middle to high-ranking position, and between 5% and 7% are users working in educational institutes, and own businesses respectively. Interestingly, none of Internet banking users in this study as students have been found. As can be seen in Table 5, Internet banking users have salary higher than 816.50 Euro were shown much interesting in using Internet banking as well as users of medium salary between 272.50 and 453 Euro, which account for 33%. It is understandable that Internet banking users with young age, unless they don't get high income per month tends to be interested in using Internet banking.

Table 2 Gender

Gender	Frequency	%	Cumulative %
Male	33	77%	77%
Female	10	23%	100%
Total	43	100	

Table 3 Age Distribution

Age	Frequency	%	Cumulative %
< 20	0	%	%
20 - 29	17	39%	39%
30 - 39	12	27%	66%
40 - 49	10	23%	89%
50 - 59	4	9%	98%
> 60	1	2%	100%
Total	44	100%	

Table 4 Education Background

Education level	Frequency	%	Cumulative %
Below high school	0	%	%
High school	0	%	%
Undergraduate bachelor's degree	25	60%	60%
Graduate master's degree	12	29%	88%
Above graduate master's degree	5	12%	100%
Total	42	100%	

Table 5 Occupation

Occupation	Frequency	%	Cumulative %
Business executive/manager	6	14%	14%
Academic/educator	2	5%	19%
Government employee	16	38%	57%
Private company employee	15	36%	93%
Self-employed (own business)	3	7%	100%
Student	0	%	%
Total	42	100%	

Table 6 Average Income

Average Income (LAK)	Average Income (Euro)	Frequency	%	Cumulative %
≤ 1,000,000	≤ 90	1	3%	3%
1,000,001 - 3,000,000	90.50 - 272	1	3%	5%
3,000,001 - 5,000,000	272.50 - 453	13	33%	38%
5,000,001 - 7,000,000	453.50 - 635	6	15%	54%
7,000,001 - 9,000,000	635.50 - 816	5	13%	67%
≥ 9,000,001	≥ 816.50	13	33%	100%
Total		39	100	

5.2 Internet banking Usage Information

In this section, first, the study observed Internet banking users spending time with Internet, and how frequently Internet banking is used. As can be seen in Figure 5, 30% of Internet banking users spend with the Internet more than 30 hours per week; this means that Internet banking users are relatively high technology adopter, while 23% spend time with the Internet only 7-11 hours per week or average of 1 hour per day. Interestingly, 14% of Internet banking users spend time with Internet less than 2 hours per week.

Regarding the Internet banking usage, as shown in Figure 6, almost 50% of respondents using Internet banking 3-4 times per month, 19% of respondents using Internet banking 5-8 times, and 17% of respondents using Internet banking twice or below. This means that most of users don't use Internet banking so often every month. Therefore, it is important for the bank to increase Internet banking usage and provide Internet banking to meet customers' needs.

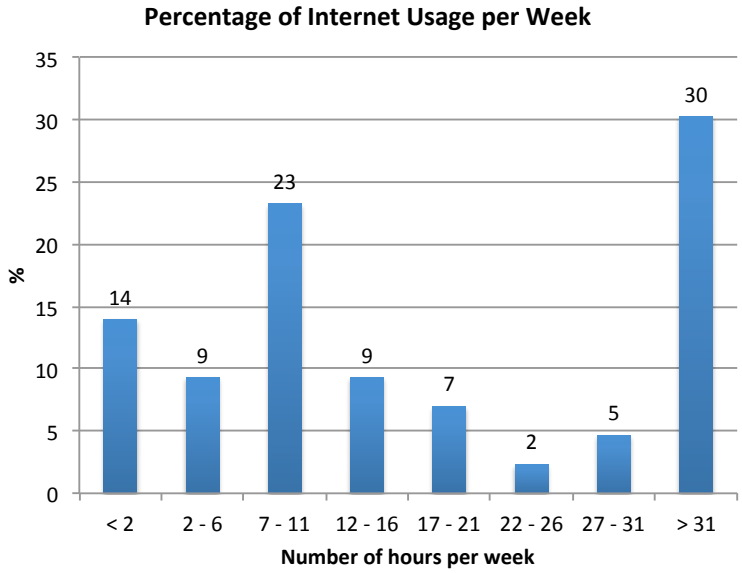


Figure 5 Percentage of Internet Usage per Week

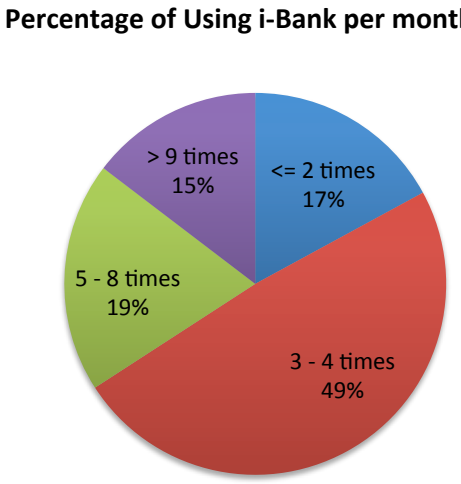


Figure 6 Percentage of Using i-Bank per month

5.3 Internet banking Service Performance

As explained in the data analysis method section, the sample size received in this research is relative small and inadequate for statistical analysis for the purpose of service quality scale measurement development. However, descriptive analysis provides useful data to explain each service quality item. By means of service performance rating bar chart, it is possible to identify which areas Internet banking performs well, and areas of improvement according to lower performance. As mentioned earlier, Internet banking in this economy is still in its

infancy. Thus, it would be interesting to understand the overall picture of its performance at this early stage.

Table 6 presents service performance in terms of dimensions of service quality. In general, Internet banking performs well in term of fulfillment/reliability, and privacy/security, with averages of 4,00 and 3,93 respectively, in a scale from 1 to 5. It is interesting to note that customer service and preferential treatment are the lowest performance of Internet banking, with averages of 3,62 and 3,34 respectively in scale from 1 to 5. However, preferential treatment performance shows the highest standard deviation (0,94). This means that different customers perceived different views in term of Internet banking fees and charges. In term of customer service, a lower performance followed preferential treatment, showing the lowest standard deviation (0,590). It should be paid attention by the bank as customers had similar point of views to evaluate customer service as unsatisfactory performer.

Service Quality Dimensions	Average Score	Std. Deviation	Std. Error Mean
Fulfillment/reliability	4,00	,730	,111
Security/ Privacy	3,93	,822	,122
Web design	3,74	,795	,119
Customer service	3,62	,590	,092
Preferential treatment	3,34	,904	,141

Table 7 Dimensions of Service Quality

In addition to the evaluation of overall picture of Internet banking performance, Figure 7 presents the evaluation of Internet banking performances perceived by Internet banking users based on quality attributes. Internet banking users were asked to vote the degree of agreement towards each Internet banking service quality item, in a scale from 1 to 5. The results indicated that overall, service quality of Internet banking is considered having fair and about to good performance, with an average of 3,78. However, this should be considered that Internet banking service should be paid more attention to improve its overall quality.

In comparison with different service performances, as can be seen again in Figure 7, Internet banking performs well in terms of precise and reliable information provided on the website, the Internet banking's website does not waste time, and transaction is completed by the date promised. These performances were highly rated among Internet banking users, with averages

of 4,09, 4,07 and 4,00 respectively. However, the Internet banking performances that were rated between 3,61 and 3,76 were considered in warning areas of being low performances. These are:

- When you have a problem, the i-Bank's website shows a sincere interest in solving it,
- The site map of the i-Bank's website is clear, the content and picture of the site are user-friendly,
- It is quick and easy to complete a transaction at the i-Bank's website,
- The i-Bank's webpage does not freeze after I input information,
- The information provided by i-Bank's website is always updated in time,
- The level of personalization at the i-Bank's website is about right, not too much or too little, and
- Customer service representatives are qualified and have good service attitude.

Moreover, the lowest performance indicated in term of following services:

- The i-Bank's website provides preferential rates and charge fees,
- Internet transaction fees are reasonable,
- Inquires are answered promptly through online customer service representatives,
- The i-Bank's website is loaded quickly, and
- The i-Bank's website does not confuse me in what I want to do with the website pages.

With averages of 3,14, 3,53, 3,55, 3,58 and 3,60. Appendix C shows details of data analysis.

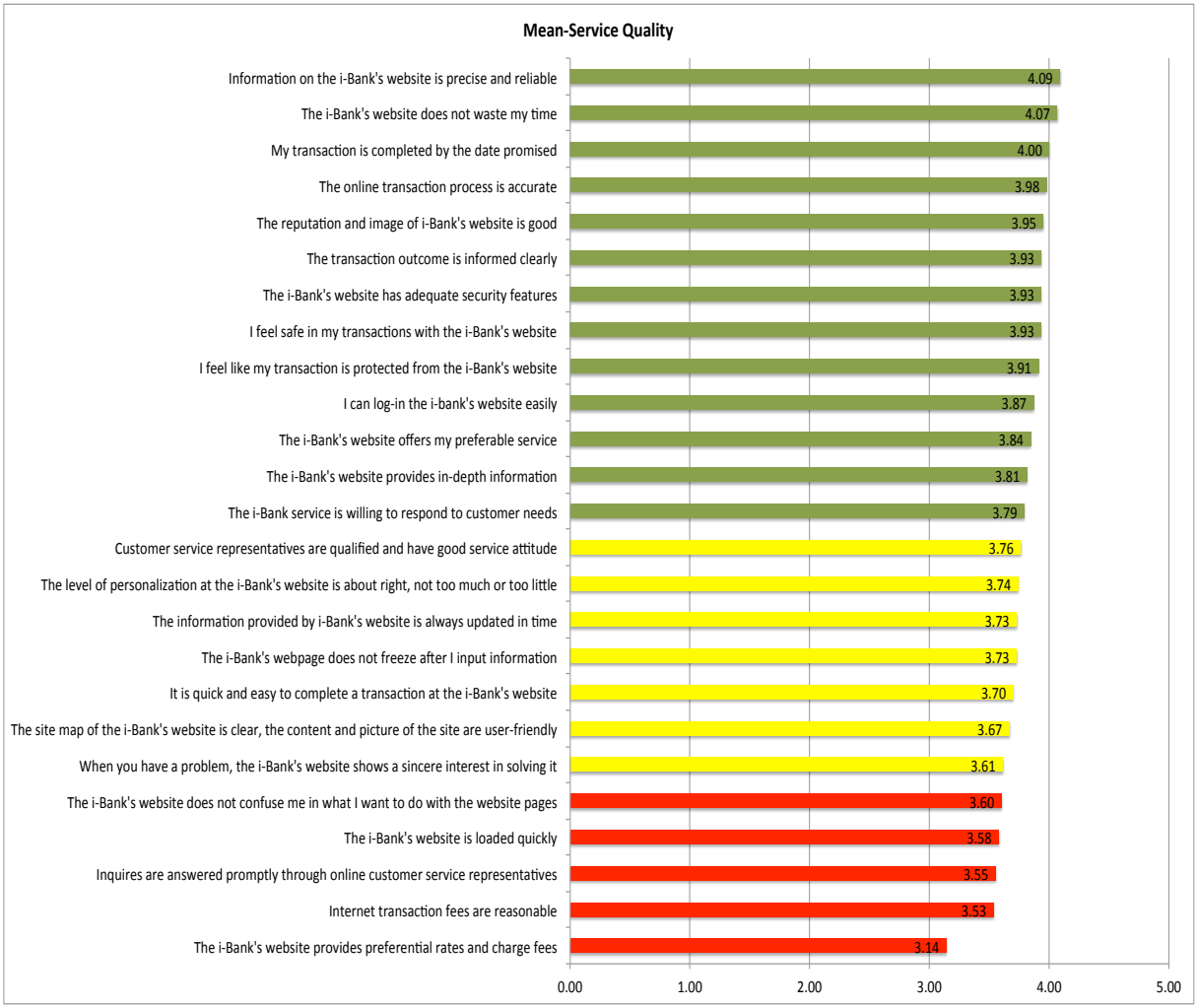


Figure 7 Internet banking Service Performances

5.4 Improvement Areas for Internet banking

As shown in Figure 7, Internet banking preferential treatment received poor ratings from Internet banking users. All service performances attributes in this dimension were drawn attention by Internet banking users. Internet banking users evaluated rates and charge fees provided by the bank as the lowest performance as well as transaction fees, with averages of 3,14 and 3,53. These results are in line with the qualitative study results, where customers expressed their concerns regarding some fees related when they want to keep Internet banking account active in spite of the fact that their Internet banking activity demand is not high. This indicates that preferential treatment is an improvement area for the bank. Following by customer service and web design. Improvement should be addressed the issues of prompt answering inquires through online customer service representatives, loading of the i-Bank's website, and confusing in what to do with the i-Bank's website. With averages of 3,55, 3,58 and 3,60 respectively. However, at the time of this study, Internet banking has not yet provided online customer service representative where a customer can chat with a service representative personnel via online chatting window.

It is interesting to note that, attributes from customer service and web design service

dimensions spread all over in the areas of performance level. Particularly, in the area of moderate performances, with averages of between 3,61 and 3,76. This indicates an important for the bank that improvement in these areas should be paid attention to for future improvement of Internet banking.

5.5 Customer Satisfaction, Loyalty intentions, and Global Quality

Providing quality in service leads to customer satisfaction and loyalty. Companies gain more profit by retaining loyal customers than recruiting new ones to replace discontinued customers (Palmer 2011). This section is an observation of customer satisfaction towards Internet banking service quality, and behavior intentions.

As can be seen in Table 8 and Table 9, satisfaction and loyalty intention levels are ranked from fair to good level. There is not much difference between customer satisfaction and loyalty intentions rating score, with averages of 3,77 and 3,93 respectively. However, Internet banking users are more likely to be loyal customers although Internet banking service is not very satisfied. Interestingly, it is sensible to note that Internet banking users are likely to promote Internet banking's website by telling others to use the website. As we can see the ratings for these attributes are higher than others: I encourage friends and relatives to do business with the i-Bank's website; I would recommend the i-bank's website to someone who seek my advice; I say positive thing about the i-bank's website to other people, with averages of 3,98, 4,07, 4,11 respectively.

Customer Satisfaction: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
I have truly enjoyed making transaction from the i-bank's website	41	3,63	0,733	0,115
I am satisfied with my most recent decision to make transaction from the i-bank's website	43	3,72	0,630	0,096
I am sure it was the right thing to make my most recent transaction at this website	42	3,76	0,692	0,107
If I had it to do over again, I would make my most recent transaction at the i-bank's website	39	3,77	0,627	0,100
I am happy I made my most recent transaction at the i-bank's website	43	3,81	0,732	0,112
My choice to make transaction from the i-bank's website was a wise one	44	3,89	0,722	0,109

		3,77	0,689	0,106

Table 8 Customer Satisfaction

Customer Loyalty: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
I consider the i-bank's website to be my first choice to make transaction	45	3,73	0,688	0,102
I will do more transaction with the i-bank's website in the next few years	45	3,78	0,735	0,110
I encourage friends and relatives to do business with the i-bank's website	45	3,98	0,690	0,103
I would recommend the i-bank's website to someone who seek my advice	46	4,07	0,611	0,090
I say positive thing about the i-bank's website to other people	46	4,11	0,605	0,089
		3,93	0,666	0,099

Table 9 Customer Loyalty

Global Quality

According to Table 10, this section measures overall transaction experience of Internet banking users at Internet banking's website. The data indicates the overall experience through i-Bank's website as fair to about good service, with an average of 3,82 in a scale 1 to 5. This shows that there is not much different when Internet banking users evaluated individual Internet banking service performance, with average of 3,78 as reported in Internet banking service performance section. Nevertheless, at the end, customers evaluated the overall experience with Internet banking service higher than evaluation of individual service performance.

Global Quality: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
The overall quality of my transaction experience with the i-bank's website is…	44	3,82	0,582	0,088
My overall feelings towards the i-bank's website are…	46	3,83	0,769	0,113
		3,82	0,675	0,100

Table 10 Global Quality

5.6 Summary of Open Questions

This part of analysis includes an open question. Although the response rate of this part is not very high; represents 32% of total responses, it is still helpful to learn deeply from users' perspective. The respondents were asked "In your opinion, what improvements would you like to suggest to i-Bank service?". The results shown that webpage design and functionality are mainly referred for improvement. For instance, webpages are blurring, need to improve user-friendly interface, need to have Lao language on website etc. As one respondent reported "i-bank is difficult for checking the last transactions of my account". However, regarding the suggestion for having Lao language on website, at the time of this study, Lao language version on Internet banking's website already exists. Free of charges/fees, and security issues were also found for improvement suggested by respondents. Appendix B presents more details of the data.

5.7 Conclusion and Implications of Quantitative Study

This quantitative study sought to evaluate and describe Internet banking service performance of BCEL, a well-known bank in Laos. The quantitative analysis highlighted the strongest and weakness of Internet banking performances. By means of addressing the weakness performances of Internet banking, as a result improvement areas could be identified.

In this context, Internet banking users are more likely to be male, young to middle age group, have higher education level, and higher professional status. Moreover, none of the Internet banking users is students, and users who have medium to high income show high interesting in using Internet banking.

The quantitative results show that, at global level, Internet banking's website performs better in term of fulfillment/reliability. Especially providing precise and reliable information, as

evaluated by most Internet banking users. Because displaying accurate information on website helps Internet banking users to answer their questions in alternative to inquire from customer service representatives, which can save significant time for customers instead of visiting bank branches.

Security/privacy and web design were also found as good performers following the fulfillment/reliability. However, findings from the open question revealed several recommendations for better web design and more functionality to Internet banking. Therefore, this could be noted for the importance of web design.

Customer service and preferential treatment are least performances Internet banking provides. Preferential treatment, which also found repeated in open question and qualitative study, is the most important for some Internet banking users in considering to retain or leave Internet banking. Customer service is also an issue, although information or guidelines could be found from Internet banking's website. It could be understood that Internet banking users still want to contact service representative when dealing with transaction processes.

Quantitative study also found that customer satisfaction with Internet banking is about to "good". However Internet banking users still tend to be loyal customers and engage with the bank. In general, overall Internet banking service quality is almost "good".

Improvement areas for Internet banking are identified. The most important issues are related to transaction fees, rates and charge fees the bank provides. Additional improvements are the matters of prompt answering inquires through online customer service representatives, loading of the i-Bank's website; and confusing in what to do with the i-Bank's website. However, at the time of this study, Internet banking has not yet provided online customer service representative where a customer can contact with a service representative personnel via online chatting window.

The quantitative stage provided an understanding of Internet banking performance of a bank in Laos context and how Internet banking satisfies Internet banking users in this region and customer loyalty intentions. The study also provided the groundwork for identifying improvement areas needed in Internet banking service.

5.8 Recommendations for the Bank

As Internet banking is an emerging innovation in ASEAN region including Laos, it becomes important for executives of banks to be innovative in their approach to meeting customer requirement. Customers' evaluation of Internet banking service quality could provide useful feedbacks to managements for strategic decision.

Based on conclusions of this study, several recommendations for the bank can be drawn as follows:

- Enhancing Internet banking usages and number of users. Most technology adopters in Laos are young consumers group, particularly students in universities and colleges. Therefore, the bank should take consideration to evaluate Internet banking market segmentation for the aim of expanding Internet banking to reach this market. Because Internet banking users, who are students, were not found in this study.

- Pricing structure evaluation, in order to attract more customers as well as retain existing ones. This is to address the main issue of Internet banking fees and charges. Providing lower fees or no fees can be an influence to increase number of Internet banking users and Internet banking usages. Additionally, providing no fees would attract students to adopt Internet banking, as most students in Laos cannot earn high income or none income but they are more technology adopters than other market segment.
- Improving customer services, especially establishing online customer service representative system or Live chats to solve customer problems without any delays. This can result in improving quality in service and increased customer satisfaction.
- Improving the technical performance of Internet banking's website, speed of the Internet banking's website and a user-friendly system. Because, website design is an important factor influences customer loyalty intentions. Although the outcome of transaction was satisfying, if the website is difficult to use, a customer is less likely to intend to use it again (Wolfinbarger and Gilly 2003).

In addition to the recommendations raised from conclusions, some suggestions can be elicited during the data collection with the bank. Firstly, to develop a systematic social-demographics information system. Secondly, establish systematic customer contact database system; particularly having customers' email addresses. This is important for market intelligence purpose, and improvement of Internet banking system strategy in the future. It was reported that roughly 30% of total Internet banking customers the bank has email addresses. Moreover, customer contact information is still in paper-based record keeping. Therefore, having systematic social-demographics, and customer contact information at hand is not only timesaving but also useful preliminary information for supporting marketing strategy in many aspects.

5.9 Lessons Learnt From this Study

Internet banking in Laos emerged in the last 7 years and it has been seen as a big challenge for the bank in providing new innovative financial management to meet consumers' requirements in this specific region. With a high motivation in doing this research in collaboration with the bank to develop a service quality scale measurement for Internet banking service, there are unexpected obstacles emerged preventing the dynamic of this study according to the plan. Firstly, offering incentive in hoping to increase more responses in this survey was impossible in Laos. This could be related to cultural issues. Secondly, knowing later that the information system of the bank is not ready to use at the time of this research. As a result, it lacks of useful and sufficient data for utilization in this study. Thirdly, conducting online survey is not easy in Laos as majority of targeted respondents refused to participate in the study by employing this method. Future research should pay more attention whether to adopt online survey or survey in paper. Finally, due to time limitation of this study, the data collection was started in an inappropriate time. It was during the most important national holidays and the busiest time in Laos. This could be a potential issue of avoiding expected participation in this study.

6 Mobile phone adoption in Southeast Asia, and Laos

Chapter 5, this chapter presents the overall picture of mobile phone adoption in a specific

Asia region. The aim is to understand characteristics of mobile phone usage and to provide some background information that leads to understanding the tendency of mobile banking adoption in Asia. The information reported in this section is secondary data gathering from reliable sources on Internet.

Several researches have reported that Asia has a large young population, with most of them being "e-savvy" and enjoying the use of technology devices. Many of them prefer to use Internet on mobile devices more than of the personal computer at home or a specific location (PC).

According to a report from MobileMonday, the share of smartphones has been rising and contributes more than 66% to the overall mobile phone pie. Over 35% of all smartphones sold in Southeast Asia in the first three months of 2012. Thus, there is a strong demand for mobile phones and services in Southeast Asia as mobile phone shipment in Southeast Asia is still growing, and expected to reach 163 million by 2015 and the mobile phone penetration rate indicated in various countries in the region.

Figure 8 shows percentage of overall mobile phone, smartphones/feature phones, Internet, and Internet mobile penetration in the six key countries in Southeast Asia in 2012. The data shows that Singapore, Malaysia, and Thailand were listed in the highest mobile phone penetration rate by 150,4%, 124%, and 115% respectively. This means that there are multiple phones users in the region. Singapore has the highest smartphone/feature phones penetration rate by 73%, then Malaysia and Indonesia followed, by 27% and 20% respectively. Moreover, Singapore also has the highest mobile Internet user rate by 158%, followed by Malaysia, and Indonesia at 35% and 29% respectively. Regarding Internet penetration, Singapore, Malaysia, and Thailand are among the highest, with 184%, 62% and 37% respectively. As can be seen that mobile phone and Internet on mobile usage is very intensive in this region, especially in Singapore.

According to MobileMonday, Singapore offers various services through mobile such as education, entertainment, healthcare and commerce. With its smartphones grew over by 60% in 2011 makes Singapore the third highest smartphones penetration in the world. In Indonesia, mobile phones influence the way people interact and move. With more than half of online users shopping online makes a high potential of e-commerce in the country. E-commerce in Indonesia tends to be popular as they already established an official association for e-commerce sites and set a vision to make Indonesia the biggest digital economy in Southeast Asia. In addition, mobile banking market is growing slightly, and growing number of mobile banking transactions is faster than Internet banking in Indonesia. This maybe as a result of the continuous expanding of number of middle-class consumers in Indonesia. Besides, Malaysia has a mature market in mobile industry with mobile penetration exceeds 100%. With this, making a wide range of mobile applications and services in Malaysia emerged. Malaysia is occupied the biggest market position for tablets with sales revenue for 2011 at US$374 million. By the end of 2016, Philippine is expected to reach a mobile penetration rate of 114%. Additionally, Philippine is the world's 12th largest mobile market. In Thailand, mobile Internet usage is higher than desktop, and 77% of mobile phone market dominated by iOS mobile platform. Thais spend times on mobile devices with an average of 6.6 hours daily. As a result, social media and entertainment are driving mobile growth in Thailand.

According to a recent report from Neilsen in 2014, a world leader in consumer measurement. Singapore has smartphone penetration rate at 87%; which is the highest in Southeast Asia and Asia Pacific, followed by Malaysia at 80%. Thailand's smartphone penetration is at 49% while Indonesia 23%, and Philippines 15%. Moreover the number of consumers owning more than one mobile phone is also increasing across the region, especially in Malaysia by 47% and Singapore 29%. This can be presumed that the countries have high smartphone penetration rate tend to have more sophisticated and active Internet users.

In Laos, Mobile phone penetration rate was 64,7% in 2012. However in 2011, the penetration rate went to 84% (Mobile cellular subscription per 100 people, The World Bank). Although, smartphones penetration rate has not been confirmed. Laos has a large share of younger (15-24 years old) population by 21.3% (Laos, The World Factbook), low-cost smartphones and tablets, and with the Internet penetration at 10.7%, it can be presumed that there is a large room to grow for technology and innovation in this region as younger generation in Laos as well as other Asian countries tends to be fast technology adopter.

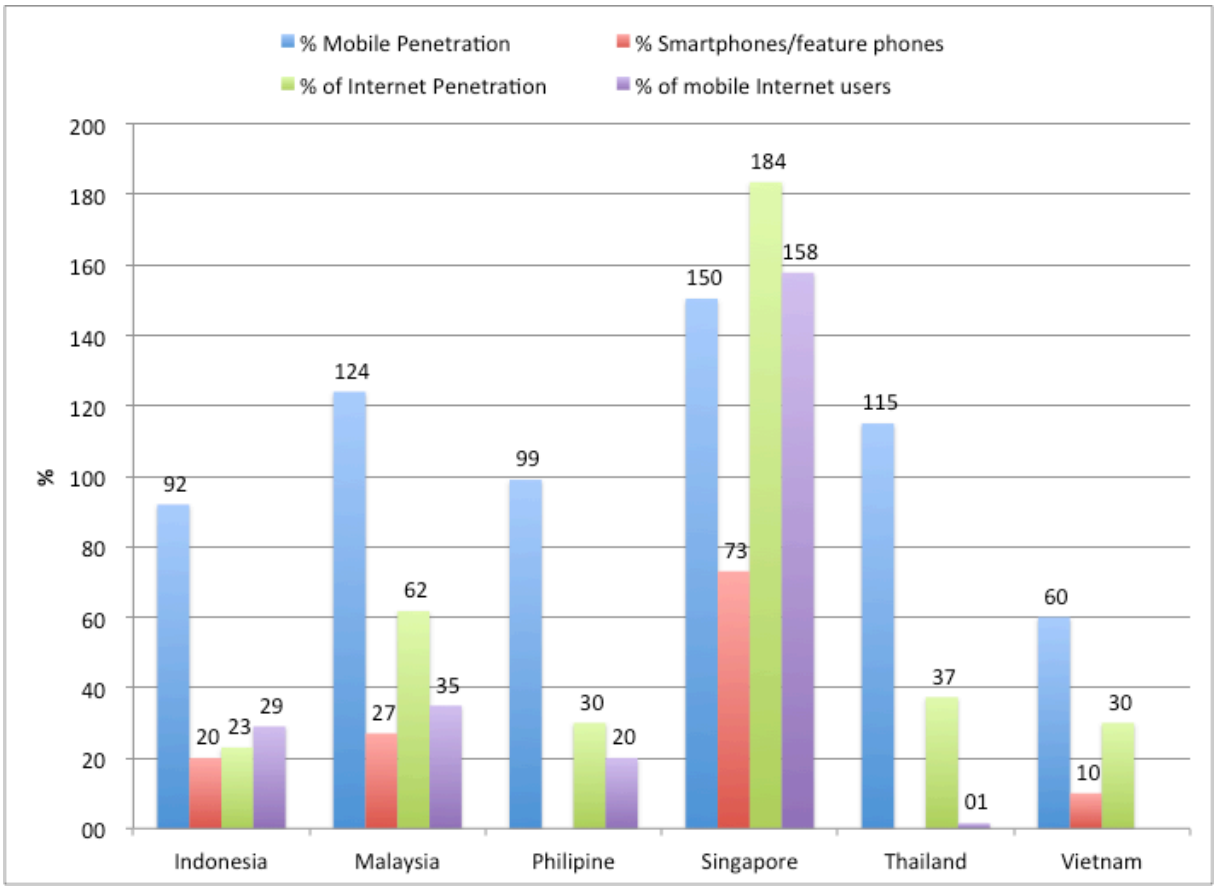


Figure 8 Mobile phone and Internet Penetration in Southeast Asia, 2013

Source: Adapted from MobileMonday "Mobile Southeast Asia Report 2012"

Mobile phone adoption in different countries varies, however the different adoption rates shows in good extent and they tend to grow quickly as a result of technology infrastructure support and cheaper mobile phones are spreading in Asia as well as in Laos. In conclusion, when there are more people own mobile phones especially smartphones and the availability of

Internet technology, mobile phones users are likely to utilize mobile devices not only basic stuff but for other purposes such as dealing with financial matters.

6.1 Emerging of Mobile Banking in Asia

A report from Juniper research finds that by the end of 2017, over 1 billion mobile phone users will use their mobile devices for banking purpose (Juniper research, 2013). As bank customers are already seeing the advantages of accessing banking services from their mobile devices. As a consequence, mobile banking is growing around the world as a result of increasing self-service and smartphone adoption. A number of banks are now deploying mobile banking service to satisfy their customers. Most banks have at least one mobile banking offering, either via messaging, mobile browser or an application-based service. Emerging markets have no exception to follow the trend and have been fostering the mobile channel as a method for providing banking and financial services. For instance, in Indonesia, number of mobile phone banking transactions is much faster than that Internet banking transactions (Mobile Southeast Asia Report; 2012, MobileMonday). Moreover, in some Asia Pacific countries, China (93%), India (90%), Singapore (86%), and Australia (74%) have already used mobile device for banking purpose recently. Almost every smartphonatics[1] in India, China, and Singapore were expected to use mobile device for banking, and the same with Australia by 88% in the near future. In addition, smartphonatics expressed that mobile banking services will be "very important" to them in the next three year (Mobile Southeast Asia Report; 2012, MobileMonday).

In conclusion, although different countries have various adoption rates and purposed of mobile banking, however all countries already reported high adoption of mobile phone for the purpose of financial services. With this information, it can be assumed that mobile banking adoption and the trend in Asia will be intensive in near future.

6.2 Electronic Banking Trend in Laos

Currently, banks are making a lot of efforts to improve and enhance their online services under the pressure of increasing financial competitive in Laos market. At the same time, more people are gaining advantages from online services in order to move faster, live in flexible way and lowest costs. Fortunately, banks in Laos have been keenly aware of the important of online services and developing online banking services in order to attract new customers as well as retain the existing ones. On the other hand, increase advantages of competition. Because, competition among commercial banks in Laos is increasing; banks are offering variety of banking services through Internet channel as one of marketing policies. As explained earlier, there are more than 30 banks operating in Laos. However, there is only BCEL bank is offering a various e-banking services. This means that there is a large room for competitive development of financial innovation such as e-banking in this economy.

[1] Smartphonatics: "Someone who changes their shopping, financial and payment behavior as a result of owning a smartphone". Aite Group

According to the interview with e-banking director of BCEL, Internet banking in Laos tends to be more preferable for business users such as SMEs, and corporate sectors, as their requirements are more divers than individual users. The highest adoption of e-banking services in Laos is mobile banking, and it will be increased rapidly in coming years, as the bank aims to university students as the main target group for the future development of mobile banking functions. General speaking, each year more than two thousand students entering to the national university, from our observation, most of them own a smartphone or at least feature phone.

Moreover, e-banking adoption will be more extensive in Laos shortly, as more banks are planning to invest in e-banking in the near future, and as a result of AEC 2015; free trades; and services in Asean countries will boost the usage of e-banking. According to an interview from e-banking director.

"We foresee that the AEC in 2015 will effect the increasing usage of Internet banking and mobile banking. As more businesses and foreign investors are coming to invest in Laos. We will improve our Internet banking and mobile banking services for the coming AEC," says Sisaath Neumasa, e-Banking director, BCEL.

Interestingly, SMS banking alerts still remain the most common type of banking in Laos since starting the service until now, as it is quick and the most convenient tool customers prefer to use.

7 Conclusion and Future Work

The purpose of this research is to develop service quality dimension for Internet banking in Laos. The research is based on eTailQ instrument, which is considered to be one of the most comprehensive scale measurements in evaluation of online service. The data was collected from qualitative and quantitative method. The qualitative method was in-depth interviews with Internet banking customers and bank managers. The quantitative method was sending an online questionnaire to Internet banking customers in Laos. Despite 1995 questionnaires were sent out, only 46 valid questionnaires received. Therefore, it is not possible to perform statically valid data analysis for service quality scale measurement in this study.

This research extends to descriptive analysis for better understanding the background of Internet banking in Laos. In addition, other e-banking services were observed for understanding the overall picture of e-banking in Laos as well as making contribute to this research. Qualitative study was very helpful in this research as it provided new areas emerged to be studied in Laos context. For instance, fees and charges of using Internet banking, and reputation of the bank. Although, it was argued in past researches that price and bank reputation should not be considered in evaluation of service quality. However, It is important as these issues were repeated mentioned during the interview. Quantitative study was finally concluded the performance evaluation of Internet banking. Measuring service performances with survey gives direction to the banks for efforts and valuable inputs for improvement. In this study, the Internet banking in Laos performs better in term of fulfillment/reliability followed by security/privacy. It is interesting to note that web design, customer service, and preferential treatment should be paid more attention by the bank for evaluation and improvement. With an average of 3,82 global quality evaluated by respondents, more

researches on Internet banking improvement should be carried out to increase the rating. In spite of having lower satisfaction, respondents still intend to be loyal customers with Internet banking service in Laos.

Like any study, this work naturally leaves some clues and limitations for further researches. First, Internet banking is still relatively new in Laos, an understanding the important and benefits to use seem to be low. As the response of this research is relative low (only 46 responses), this could be an interesting, important, for further study regarding customer acceptance towards the Internet banking in Laos as well as customer readiness.

Finally, increasing of mobile phone adoption in Asia influences adoption of mobile banking in Laos as a consequence. This study already provided some background information of mobile banking in Asia and Laos but it is not enough to make comprehensive conclusion. The future research should address mobile banking adoption as an emerging occurrence in this particular region as there is no study related to mobile banking in this region currently.

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ANEXO A: Survey questionnaire

Survey: Customer perception of i-Bank service quality - A case study of BCEL

Service Quality, Customer Satisfaction and Loyalty Intentions

PART I: Service quality

Please rate according to your degree of agreement (1-Strongly disagree to 5-Strongly agree)

*if you don't know the answer, please choose "no answer" option

1. The i-Bank's website provides in-depth information
2. The i-Bank's website does not waste my time
3. It is easy to complete a transaction at the i-Bank's website
4. The level of personalization at the i-Bank's website is about right, not too much or too little
5. The i-Bank's website offers my preferable service
6. The transaction outcome is informed clearly
7. The i-Bank's website does not confuse me in what I want to do with the website pages
8. The i-Bank's webpage does not freeze after I input information
9. The site map of the i-Bank's website is clear, the content and picture of the site are user-friendly
10. I can log-in the i-bank's website easily
11. The i-Bank's website is loaded quickly
12. The information provided by i-Bank's website is always updated in time
13. Information on the i-Bank's website is precise and reliable
14. The online transaction process is accurate
15. My transaction is completed by the date promised
16. The reputation and image of i-Bank's website is good
17. I feel like my transaction is protected from the i-Bank's website
18. I feel safe in my transactions with the i-Bank's website
19. The i-Bank's website has adequate security features
20. The i-Bank service is willing to respond to customer needs
21. When you have a problem, the i-Bank's website shows a sincere interest in solving it
22. Inquires are answered promptly through online customer service representatives
23. Customer service representatives are qualified and have good service attitude
24. Internet transaction fees are reasonable
25. The i-Bank's website provides preferential rates and charge fees

PART II: Customer satisfaction and loyalty

Please rate according to your degree of agreement (1-Strongly disagree to 5-Strongly agree)

*if you don't know the answer, please choose "no answer" option.

1. If I had it to do over again, I would make my most recent transaction at the i-bank's website
2. I am sure it was the right thing to make my most recent transaction at this website
3. I have truly enjoy making transaction from the i-bank's website
4. My choice to make transaction from the i-bank's website was a wise one
5. I am satisfied with my most recent decision to make transaction from the i-bank's website
6. I am happy I made my most recent transaction at the i-bank's website

Customer loyalty:

Please rate according to your degree of agreement (1-Strongly disagree to 5-Strongly agree)

*if you don't know the answer, please choose "no answer" option.

1. I encourage friends and relatives to do business with the i-bank's website
2. I say positive thing about the i-bank's website to other people
3. I will do more transaction with the i-bank's website in the next few year
4. I would recommend the i-bank's website to someone who seek my advice
5. I consider the i-bank's website to be my first choice to make transaction

PART III: Global quality

1. The overall quality of my transaction experience with the i-bank's website is...
   Very poor / Poor / Fair / Good / Excellent ○ No answer
2. My overall feelings towards the i-bank's website are...
   Very dissatisfied / Dissatisfied / Neutral / Satisfied / Very satisfied / ○ No answer

PART IV: Information of using i-Bank

1. How many hours do you use Internet per week?

Choose one of the following answers

○ < 2

○ 2 - 6

○ 7 - 11

○ 12 - 16

○ 17 - 21

○ 22 - 26

○ 27 - 31

- > 31
- No answer

2. How many times do you use i-Bank per month?

Choose one of the following answers

- ≤ 2
- 3 - 4
- 5 - 8
- > 9
- No answer

3. In your opinion, what improvements would you like to suggest to i-Bank service?

Answer:

PART V: Demographic information

1. Gender

Choose one of the following answers

- Male
- Female
- No answer

2. Age (years old)

Choose one of the following answers

- < 20
- 20 - 29
- 30 - 39

- 40 - 49
- 50 - 59
- > 60
- No answer

3. Occupation

Choose one of the following answers

- Business executive/manager
- Academic/educator
- Government employee
- Private company employee
- Self-employed (own business)
- Student
- No answer

4. Education level

Choose one of the following answers

- Below high school
- High school
- Undergraduate bachelor's degree
- Graduate master's degree
- Above graduate master's degree
- No answer

5. Average income (KIP)

Choose one of the following answers

- ≤ 1,000,000
- 1,000,0001 - 3,000,000
- 3,000,001 - 5,000,000
- 5,000,001 - 7,000,000
- 7,000,001 - 9,000,000

≥ 9,000,001

- No answer

ANEXO B: Customer's opinion from an open question

Customers' opinion from an open question.	Classification
In the first **welcome page** of the Bank website, the Enter Website could be improved to **better visible**.	Web design
Lao Language	Web design
Personalization, protect account owner, record customers accounts, display all statements, making note on movement	Personalization, and functionality
Banner of i-bank page is not beautiful, and eye blur	Web design
Improve i-Bank's website to be more user-friendly	Web design
User-friendly interface	Web design
Free of charge	Preferential treatment
After having movement of account details I would you like you to inform the customers by sending E-mail to let them know about that movement	Web design

It's very difficult to access to account	Web design
1. i-Bank should has description on each menu when move the mouse over it, 2. i-Bank should allows transferring to different currency account.	Web design, functionality
Limit some characters that allow to use for i-Bank password is not a good idea such as i cannot use @ character on my password. You should allow any character to use on Password and it will be more secure too.	Improve Security
IBANK IS DIFFICULT FOR CHECKING THE LAST TRANSACTIONS OF MY ACCOUNT.	Web design
We'd like to select the account from which the internet banking fee will be paid. (Now we pay the fee from the USD account, but we want to pay the LAK account.)	Functionality
Send kip transactions from $ based account.	Functionality
Improve Lao Language	Web design

ANEXO C: Service Quality Items Analysis

One-Sample Statistics

Dimensions	Items	N	Mean	Std. Deviation	Std. Error Mean
Preferential treatment	The i-Bank's website provides preferential rates and charge fees	37	3,14	,865	,142
Preferential treatment	Internet transaction fees are reasonable	45	3,53	,944	,141
Customer service	Inquires are answered promptly through online customer service representatives	40	3,55	,815	,129
Web design	The i-Bank's website is loaded quickly	45	3,58	,723	,108
Web design	The i-Bank's website does not confuse me in what I want to do with the website pages	45	3,60	,863	,129
Customer service	When you have a problem, the i-Bank's website shows a sincere interest in solving it	41	3,61	,771	,120
Web design	The site map of the i-Bank's website is clear, the content and picture of the site are user-friendly	45	3,67	,879	,131
Web design	It is quick and easy to complete a transaction at the i-Bank's website	43	3,70	,860	,131

Web design	The i-Bank's webpage does not freeze after I input information	44	3,73	,694	,105
Web design	The information provided by i-Bank's website is always updated in time	44	3,73	,624	,094
Web design	The level of personalization at the i-Bank's website is about right, not too much or too little	46	3,74	,801	,118
Customer service	Customer service representatives are qualified and have good service attitude	42	3,76	,726	,112
Customer service	The i-Bank service is willing to respond to customer needs	43	3,79	,638	,097
Web design	The i-Bank's website provides in-depth information	43	3,81	,852	,130
Web design	The i-Bank's website offers my preferable service	45	3,84	,824	,123
Web design	I can log-in the i-bank's website easily	46	3,87	,909	,134
Privacy/ security	I feel like my privacy is protected from the i-Bank's website	45	3,91	,793	,118
Privacy/ security	I feel safe in my transactions with the i-Bank's website	45	3,93	,809	,121
Privacy/ security	The i-Bank's website has adequate security features	45	3,93	,863	,129
Web design	The transaction outcome is informed clearly	46	3,93	,772	,114
Fulfillment/ reliability	The reputation and image of i-Bank's website is good	41	3,95	,805	,126

Fulfillment/ reliability	The online transaction process is accurate	44	3,98	,698	,105
Fulfillment/ reliability	My transaction is completed by the date promised	43	4,00	,655	,100
Web design	The i-Bank's website does not waste my time	46	4,07	,742	,109
Fulfillment/ reliability	Information on the i-Bank's website is precise and reliable	45	4,09	,763	,114
			3,78	,788	,119

ANEXO D: Lists of meetings

Date	Time (Portugal)	Organization	Topics
27/03/2014	10 am	BCEL, e-Banking officers	Comments on questionnaire
08/04/2014	10am	BCEL, e-Banking officers	Plan for launching the survey
28/04/2014	9 am	BCEL, e-Banking officers	Discuss the results of first phase data collection and plan for next steps
29/04/2014	4 pm	BCEL, e-Banking officers	Discuss solution for the 2nd phase of data collection and proposed call interview solution to collect more data
08/05/2014	8 am	BCEL, e-Banking officers	Discuss results of the survey and collect more data for exploratory study